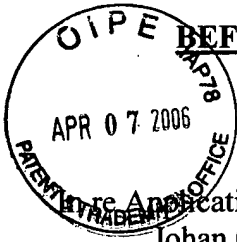


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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****BEFORE THE BOARD OF PATENT APPEALS AND****INTERFERENCES**

Application of  
Johan C. Talstra, et al.

METHOD AND SYSTEM OF  
COPY PROTECTION OF  
INFORMATION

Serial No. 09/548,727

Filed: April 13, 2000

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Examiner: Vincent F. Boccio

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Serial No. 09/548,727

**Real party in interest**

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

**Related appeals and interferences**

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**Status of the Claims**

Claims 1-21 are drawn to methods, devices and systems for copy protection of information stored on an information carrying medium wherein a reading device derives a first characteristic of the content of the information that is transmitted to an application device, and the application device derives a second characteristic of the content of the information received by the application device. The first and second characteristics are verified by comparison; which verification is used to prevent or allow playback and/or recording of the information. Claims 1-4 and 6-21 stand rejected as the claims that are currently being appealed. Claim 5 is objected to as being dependent upon a rejected claim, but otherwise stated as being allowable. A copy of claims 1-21 is contained in Appendix III following this brief.

**Status of the Amendments After Final**

A response was filed subsequent to the final rejection to overcome the examiner's rejection of claims 1-4 and 6-21 under 35 U.S.C. §102(b) and 35 U.S.C. §103(a). The examiner in an Advisory Action dated January 31, 2006 indicated that the rejections of claims 1-4 and 6-21 stand. It should be noted that the Advisory Action dated January 31, 2006 indicated that the proposed amendment filed by the appellants in response to the Final Office Action dated November 3, 2005 would not be entered. The appellants respectfully point out that the only amendment to the claims was to place appealed claim 5 in independent form as suggested by the examiner in the Final Office Action.

**Summary of the Claimed Subject Matter**

The appealed claims define subject matter for to methods, devices and systems for copy protection of information stored on an information carrying medium wherein a reading device obtains content and derives a first characteristic of the content of the information that is transmitted to an application device, and the application device derives a second characteristic of the content of the information received by the application device. The first and second characteristics are verified by comparison; which verification is used to prevent or allow playback and/or recording of the information. The invention as defined by the appealed claims provides increased security for copy protected material by having the player and receiver individually summarize content.

Appealed claim 1 defines subject matter for a method of copy protection of information stored on an information carrying medium to be read from a reading device and transmitted to an application device for playback and/or recording (see specification page 1, lines 1-3).

Appealed claim 1 further defines subject matter for the reading device to continuously derive and report to the application device a first characteristic of the content of the information transmitted from the reading device to the application device, wherein the application device continuously derives and reports back to the reading device a second characteristic of the content of the information received by the application device. The foregoing subject matter is discussed page 4, lines 31-34. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the reading device can be referred to as drive 20 (see page 8, lines 30-32). Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30. The application device 30 derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6). The foregoing derivation and reporting occurs continuously as it occurs as the data is being read from the media, summarized as characteristics and reported to the application device 30 and the drive 20 (as stated on page 4, lines 31-34).

Appealed claim 1 further defines subject matter for the characteristics to verified by comparison of the first and second characteristics as described in the specification on page 9, lines 3-20 wherein verifying units 203, 303 can each perform there comparisons. The result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

Appealed claim 7 defines subject matter for a method of exchanging copy protection information regarding a content of information contained on an information carrying medium between a reading device and an application device (see specification page 1, lines 1-3).

Appealed claim 7 further defines subject matter for deriving, by the reading device, of a first characteristic of the content of information as discussed in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the reading device can be referred to as drive 20 (see page 8, lines 30-32). Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 7 further defines subject matter for transmitting the content of information from the reading device (as described in the specification on page 9, lines 7-9).

Appealed claim 7 further defines subject matter for receiving a second characteristic of the content of information from the application device, after the transmission by the reading device, the second characteristic being received by the reading device. The application device 30 derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6).

Appealed claim 7 further defines subject matter for the characteristics being verified by comparison and wherein the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics, as described in the specification on page 9, lines 9-11 wherein verifying units 203, 303 can each perform there comparisons. The result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

Appealed claim 8 defines subject matter for a copy protection system for a copy protection of information stored on an information carrying medium having a reading device for reading a content of information from the information carrying medium (see specification page 1, lines 1-3).

Appealed claim 8 further defines subject matter for the reading device deriving a first characteristic from the content of information and transmitting the information; and an application device for any application, of information received, wherein the application device comprises means for deriving and transmitting a second characteristic of the content of the information received by the application device, the reading device receiving the transmission of the second characteristic. The foregoing subject matter is discussed page 4, lines 31-34. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the reading device can be referred to as drive 20 (see page 8, lines 30-32). Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30. The application device 30 derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6). The foregoing derivation and reporting occurs continuously as it occurs as the data is being read from the media, summarized as characteristics and reported to the application device 30 and the drive 20 (as stated on page 4, lines 31-34).

Appealed claim 8 further defines subject matter for including a verifying unit for verifying the characteristics, wherein the verifying unit compares the characteristics and the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics as described in the specification on page 9, lines 9-11 wherein verifying units 203, 303 can each perform there comparisons. The result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

Appealed claim 9 defines subject matter for a reading device for reading a content of information from an information carrying medium and transmitting the content of information to an application device for playback and/or recording (see specification page 1, lines 1-3).

Appealed claim 9 further defines subject matter for a reader report unit for continuously reporting to the application device a first characteristic of the content of the information transmitted to the application device. The foregoing subject matter is discussed page 4, lines 31-34. As shown in Figure 3 and the descriptions related thereto, the reading device can be referred to as drive 20 (see page 8, lines 30-32). Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). The reading device 20 derives the second characteristic by reader report unit 202 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 7-11).

Appealed claim 9 further defines subject matter for a verifying unit for receiving the first characteristic of the content of the information received by the application device and continuously reporting from the application device to the reading device and for verifying a second characteristic of derived by the application device for the content of information and a comparison as described in the specification on page 9, lines 9-11 wherein verifying units 203, 303 can each perform there comparisons. The result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

Appealed claim 10 defines subject matter illustrated in Figure 3 for an application device 30 for receiving a content of information contained on a record carrier 1 from a reading device 20 for playback and/or recording as discussed page 4, lines 31-34. The content is information as described in the specification on page 5, lines 3-8. An application report unit 30 for continuously reporting to the reading device 20 a characteristic derived from the content of the information received by the application report unit 302. As illustrated in Figures 3, the application device 30 derives the characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6). The foregoing derivation and reporting occurs continuously as it occurs as the data is being read from the media, summarized as characteristics and reported to the application device 30 and the drive 20 (as stated on page 4, lines 31-34).

Appealed claim 10 further defines subject matter for a verifying unit 303 for receiving characteristics of the content of the information transmitted from the reading device 20 to the application device 30 continuously reported from the application report unit 302 and for verifying the characteristics by comparison as described in the specification on page 9, lines 3-16, wherein the verifying unit 303 compares the characteristics and the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

Appealed claim 12 defines subject matter for a method as discussed in the specification on page 1, lines 1-6 for receiving a content of information from a first source and deriving a first characteristic of the content of information. The foregoing subject matter is discussed page 4, lines 31-34. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the receiving is done reading device can be referred to as drive 20 (see page 8, lines 30-32) from disk 1. Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 12 further defines subject matter for transmitting the content of information (as described in the specification on page 9, lines 7-9).

Appealed claim 12 further defines subject matter for receiving a second characteristic from a second source that is different than the first source. The application device 30 here is the second source that derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6).

Appealed claim 12 further defines subject matter for determining by comparison whether the second characteristic matches the first characteristic as described in the specification on page 9, lines 3-20 wherein verifying units 203, 303 can each perform there comparisons.

Appealed claim 14 defines subject matter for a method including deriving a first characteristic from a first portion of a first information signal in a first apparatus as discussed on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown

in Figure 3 and the descriptions related thereto, the reading device can be referred to as drive 20 (see page 8, lines 30-32). Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 14 further defines subject matter for transmitting the first portion as described in the specification on page 9, lines 7-9.

Appealed claim 14 further defines subject matter for receiving a second portion of a second information signal after the transmission of the first portion as discussed in the specification on page 9, lines 1-6.

Appealed claim 14 further defines subject matter for deriving a second characteristic from the received second portion and transmitting the second characteristic. The application device 30 derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6);

Appealed claim 14 further defines subject matter for receiving the transmitted second characteristic by verification unit 203 as shown in Figure 3 and described in the specification on page 9, lines 9-10);

Appealed claim 14 further defines subject matter for comparing the first characteristic and received second characteristic to determine if transmission should be stopped as described in the specification on page 9, lines 3-20 wherein verifying units 203, 303 can each perform there comparisons.

Appealed claim 17 defines subject matter for a transmitting apparatus, including a first receiver for receiving a content of information from a first source and deriving a first characteristic from the content of information discussed page 4, lines 31-34. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the receiving is done reading device can be referred to as drive 20 (see page 8, lines 30-32) from disk 1. Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 17 further defines subject matter for a transmitter for transmitting the content of information (as described in the specification on page 9, lines 7-9).



Appealed claim 17 further defines subject matter for a second receiver for receiving a second characteristic from a second source after a-the content of information is transmitted, the second source being separate from the transmitter and different than the first source. The application device 30 here is the second source that derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6).

Appealed claim 17 further defines subject matter for processing means for determining by comparison whether the second characteristic matches the first characteristic as described in the specification on page 9, lines 3-20 wherein verifying units 203, 303 can each perform these comparisons.

Appealed claim 19 defines subject matter for a transmitting apparatus as discussed in the specification on page 1, lines 1-3 including a first receiver for receiving a portion of information and deriving a first characteristic from the portion of information. The foregoing subject matter is discussed page 4, lines 31-34. The information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the receiving is done reading device can be referred to as drive 20 (see page 8, lines 30-32) from disk 1. Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 19 further defines subject matter for a transmitter for transmitting the received portion of information (as described in the specification on page 9, lines 7-9).

Appealed claim 19 further defines subject matter for a second receiver for receiving a second characteristic after the portion of the information is transmitted, the second receiver being different than the first receiver. The application device 30 here is the second source that derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6).

Appealed claim 19 further defines subject matter for processor means for comparing the first characteristic with the second characteristic and for terminating transmission of

further portions of the information depending on the comparison as described in the specification on page 9, lines 3-20 wherein verifying units 203, 303 can each perform there comparisons.

Appealed claim 21 defines subject matter for a system as discussed in the specification on page 1, lines 1-5. As shown in Figure 3, a transmitter that transmits (as described in the specification on page 9, lines 7-9) a content of information contained on a storage device 1 (as discussed page 4, lines 31-34) and derives a first characteristic from the content of information. The content is information as described in the specification on page 5, lines 3-8. The characteristics are described by the specification as being summaries of the transmitted and received information (see page 5, lines 9-12; page 8, lines 16-22). As shown in Figure 3 and the descriptions related thereto, the receiving is done reading device can be referred to as drive 20 (see page 8, lines 30-32) from disk 1. Drive 20 derives the first characteristic by summarizing parts of the information read from the disk 1 and report via line 205 to the application device 30.

Appealed claim 21 further defines subject matter for a receiver (application device 30 as shown in Figure 3) that receives the content of information transmitted (as described in the specification on page 8, line 30- page 9, line 3) and derives a second characteristic from a portion of the transmitted information and transmits the characteristic, the receiver being separate from the transmitter. The application device 30 derives the second characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6).

Appealed claim 21 further defines subject matter for the transmitter further includes means for comparing the first characteristic to the second characteristic to determine if the characteristics match (as described in the specification on page 9, lines 11-20).

### **Grounds of Rejection to be Reviewed on Appeal**

The Advisory Action dated January 31, 2006 indicated that the rejections to claims 1-4 and 6-21 stand. Claims 1-4 and 6-21 are the appealed claims. Appealed claim 7, 8 and 12-21 are rejected under the provisions of 35 U.S.C. §102(b) has been anticipated by the published International Application WO 99/11064 by Linnartz (hereinafter referred to as *Linnartz*). Appealed claims 1-4, 6 and 9-11 are rejected under the provisions of 35 U.S.C. §103(a) has been obvious over *Linnartz* in view of U.S. Patent No. 5,915,027 issued in the name of Cox et al. (hereinafter referred to as *Cox et al.*).

## **Argument**

### **I. The rejection of appealed claims 7, 8 and 12-21 under the provisions of 35 U.S.C. §102(b) as being anticipated by *Linnartz***

#### **A. The rejection under 35 U.S.C. S 102(e)**

Appealed claims 7, 8 and 12-21 stand rejected under the provisions of 35 U.S.C. §102(b) as being anticipated by *Linnartz* (U.S. Patent No. 5,915,027). The examiner's position is that *Linnartz* disclose every element defined by appealed claims 7, 8 and 12-21.

The MPEP at §2131 sets forth the requirements for anticipation of a claim and requires that a reference teach every element of the claims. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

#### **B. The reference**

*Linnartz* (U.S. Patent No. 5,915,027) relates to receiving and controlling the playback of encoded video content. The content retrieved by a playback device is watermarked and includes a control signal (See Abstract). The control signal indicates the amount of copying or playing of the content that is allowed. The watermark is transmitted from the playback device to a receiver device where the watermark is extracted by a decoder. The retrieved watermark device is communicated back to the playback device where it is compared against further supplemental information such as a physical mark on the disc or the control signal to allow or disallow playback (See Abstract). The content transmitted from the playback device to the receiver device contains the watermark. Note that the content that is compared against the retrieved watermark is not disclosed or suggest as being derived from the content that is transmitted from the playback device to the receiver device.

*Linnartz* teaches that a physical mark can be contained on a medium and to cryptographically relate the physical mark to the watermark. *Linnartz* further teaches that it is cryptographically unfeasible to compute the physical mark from the watermark (see page 5, lines 12-18). The physical mark as taught by *Linnartz* is generated from a seed (see page 5, lines 18-20). *Linnartz* teaches that is cryptographically unfeasible to compute the seed from the physical mark (see page 5, lines 33-34).

*Linnartz* teaches a record carrier 51 having a physical mark P and video content containing a watermark W (see Figure 5). The record carrier 51 is played in drive 52 by reading means 53. The reading means has a control unit that detects physical mark P and controls switch 54 based on copyright information (see page 9, lines 16-22). Information related to the presence of the watermark is transferred back to the drive 52 via link 56. The drive 52 can sign the content and the decoder 57 returns a watermark with appropriate signatures. The drive 52 then checks whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

The discussion by *Linnartz* related to a second embodiment as shown in Figure 6, beginning on page 10, line 33 relates to watermark detection with secure links. There is a forward secure path 63 for transmissions from the drive 52 to the decoder 57 and a backward secure path 64 to accommodate communications from the decoder 57 to the drive 52. The second embodiment teaches that the link between drive 52 and decoder 57 is secure due to encryption, implying that the drive and decoder share a common secret. *Linnartz* teach that the secret can be time varying if the drive and decoder have a mechanism to generate a session key (see page 11, lines 10-13). Note that there is no disclosure or suggestion within *Linnartz* for the common secret to include characteristics that are derived from the content that is transmitted from the drive to the decoder.

*Linnartz* describes a third embodiment on page 11, lines 16-19 wherein the drive and decoder go through an authentication process. There is no disclosure or suggestion within *Linnartz* for the authentication process to include characteristics that are derived from the content that is transmitted from the drive to the decoder.

*Linnartz* describes a forth embodiment on page 11, lines 20-31 wherein the drive hashes, adds a random number and signs the MPEG stream. The decoder verifies the signature, detects the watermark and sends these as a message back to the drive. Note that there is no disclosure or suggestion within the fourth embodiment of *Linnartz* for deriving characteristics of content of information obtained by the drive and transmitted to the decoder to be compared with the characteristics derived from the content received by decoder.

*Linnartz* describes a fifth embodiment beginning on page 11, lines 31 wherein the burden of checking hashes is not placed on the drive or the decoder, but instead upon the MPEG encoder. The MPEG encoder computes a set of values that are provided to the recorder and the drive. The drive selects one of these numbers and requests the decoder to perform the watermark check and hash function, and sign the resulting numbers. The result from the decoder is checked by the drive. Note that there is no disclosure or suggestion within the fifth embodiment of *Linnartz* for deriving characteristics of content of information obtained by the drive and transmitted to the decoder to be compared with the characteristics derived from the content received by decoder.

### **C. The differences between the invention and the reference**

#### **Appealed claim 7**

Appealed claim 7 defines a method of exchanging copy protection information regarding a content of information contained on an information carrying medium by a reading device deriving of a first characteristic of the content of information. The characteristic of the information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise

means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 7 are not found within *Linnartz*.

The rejection (contained in the September 22, 2004 Office Action) alleges that the disclosure by *Linnartz* of an MPEG encoder that pre-computes several Hash values over MPEG content anticipates the first characteristic of the content. The terms characteristics and summaries are used synonymously within the specification to the present invention. The terms characteristics and summaries are not disclosed or suggested by a Hash function. Furthermore, the first characteristic as defined by appealed claim 7 is derived by the reading device. The rejection alleges that the MPEG encoder pre-computing Hash functions which are delivered to the reader and receiver within the fifth embodiment of *Linnartz* (discussed beginning on the bottom of page 11) anticipates deriving of the first characteristic as defined by appealed claim 7. The appellants, respectfully, point out that the first characteristic is derived from the content. There is no derivation of Hash value from the content by *Linnartz*. The Hash values are selected at random (see page 12, line 11) and not “derived” from the content. The appellants, respectfully, assert for the above stated reasons that there is no disclosure or suggestion for the subject matter of either “deriving” or “first characteristic” by *Linnartz*. Therefore, all the elements defined by appealed claim 7 are not found within *Linnartz*.

Appealed claim 7 defines subject matter for transmitting the content of information from the reading device. The rejection alleges that *Linnartz* discloses transmitting the content of information. The appellants, respectfully, point out that the content is used to derive the first characteristic as defined by appealed claim 7. The rejection, as discussed above, uses the Hash function as the first characteristic. The content from which the Hash function is derived is not transmitted by *Linnartz*. Therefore, the identical invention defined by appealed claim 7 is not shown in as complete detail as is contained in the appealed claim.

Appealed claim 7 defines subject matter for receiving a second characteristic of the content of information from the application device, after the transmission by the reading device, the second characteristic being received by the reading device. The rejection alleges that the second characteristic is anticipated by the disclosure of Hash values within *Linnartz*. As previously discussed, the specification to the present invention on page 5, lines 9-12 defines characteristics as summaries of selected parts of information. The teaching of Hash values and functions by *Linnartz* does not disclose or suggest the second characteristic defined by appealed claims 7.

#### **Appealed claim 8**

Appealed claim 8 defines a copy protection system for a copy protection of information stored on an information carrying medium having a reading device for reading a content of information from the information carrying medium, and for deriving a first characteristic from the content of information and transmitting the information; and an application device for any application, of information received. The specification to the present invention defines characteristic of the information as a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 8 are not found within *Linnartz*.

The rejection (contained in the September 22, 2004 Office Action) alleges that the reading device of *Linnartz* (drive 52) checks a first characteristic watermark against corresponding characteristic or supplemental information. The appellants, respectfully, point out that *Linnartz* teaches to check whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and

that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

Appealed claim 8 further defines the application device as deriving and transmitting a second characteristic of the content of the information received by the application device, the reading device receiving the transmission of the second characteristic. Appealed claim 8 defines subject matter for transmitting the content of information from the reading device. The rejection alleges that *Linnartz* discloses transmitting the content of information. There is no disclosure or suggestion within *Linnartz* deriving first and second characteristic from content contained on the information carrying medium and comparing the first and second characteristics for a match. The physical or control signal representing the watermark is compared with the derived watermark signal from the decoder. The appellants respectfully point out that the physical mark within *Linnartz* is not transmitted by the reader. Furthermore, within *Linnartz*, the hash signal is transmitted by the reader. The decoder, within *Linnartz*, does not transmit a hash signal. The signatures within *Linnartz* are not characteristics of the content of information that is contained on the information carrying medium. Therefore, *Linnartz* can not perform a comparison of the first and second characteristics as defined by appealed 8. Accordingly, the subject matter of appealed claim 8 is not disclosed or suggested by *Linnartz*.

#### **Appealed claim 12**

Appealed claim 12 defines subject matter that clearly identifies that the first characteristic is derived from the content of information from the first source. Appealed claim 12 further defines that a second characteristic is received from a different source and a comparison determines whether the first and second characteristics match. The Applicants, respectfully, submit that this subject matter clearly distinguishes Appealed claim 12 from *Linnartz*.



The characteristic of the information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 12 are not found within *Linnartz*.

#### **Appealed claim 13**

Appealed claim 13 defines the subject matter of the method of appealed claim 12, wherein the first source is reading apparatus for reading the content of information from a record carrier, the second source is a playing and/or recording device that derives the second characteristic from the content of information transmitted, and the method further comprises terminating the transmitting if the characteristic is not derivable from the content of information transmitted.

Appealed claim 13 defines that the first and second characteristics are derived from the content of information on a record carrier. There is no disclosure, or suggestion, within *Linnartz* for deriving characteristics from content on a record and determining by comparison if the first and second characteristics match. Therefore, the appellants, respectfully, submit that the subject matter of appealed claim 13 is not anticipated by *Linnartz*.

#### **Appealed claim 14**

Appealed claim 14 defines subject matter for the deriving of a first characteristic from a first portion of a first information signal in a first apparatus and comparing the first and second characteristics to determine if transmission should be stopped. The characteristic of the information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted

information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 14 are not found within *Linnartz*.

The appellants, respectfully, submit that there is no disclosure or suggestion for deriving a first characteristic from a first portion of a first information signal and comparing the first and second characteristics to determine if transmission should be stopped by *Linnartz*.

#### **Appealed claim 16**

Appealed claim 16 defines that the first and second portions are read from a record carrier. *Linnartz* does not disclose or suggest first and second characteristics that are derived from portions contained on a record carrier and compared to determine if transmission should be stopped.

#### **Appealed claim 17**

Regarding appealed claim 17, the rejection asserts that *Linnartz* discloses the subject matter for receiving a content of information from a first source and deriving a first characteristic from the content of information, a second characteristic received from a second source, and a comparison that determines if the second characteristic matches the first characteristic. The characteristic of the information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used

within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 17 are not found within *Linnartz*.

**Appealed claim 18**

Appealed claim 18 defines the subject matter of appealed claim 17, wherein the first source is a record carrier that contains the content of information and the first receiver is a read head and the second source is a receiver for the content of information transmitted, wherein the second source derives the second characteristic from the content of information and the second receiver is an input for an electronic signal, the transmitting apparatus and the second source are separate portions of player and/or recorder for the record carrier, and the transmitting apparatus terminates further transmission of information depending on the determination by comparison if the second characteristic matches the first characteristic. *Linnartz* do not disclose or suggest comparing first and second characteristics that are derived from the content of information of a record carrier.

**Appealed claim 19**

The rejection alleges that the subject matter of appealed claim 19 is anticipated by *Linnartz*. Claim 19 defines a first receiver for receiving a portion of information and deriving a first characteristic from the portion of information and comparing the first characteristic with the second characteristic and for terminating transmission of further portions of the information depending on the comparison. *Linnartz* do not disclose or suggest comparing first and second characteristics that are derived from the portion of information.

**Appealed claim 20**

The rejection alleges that *Linnartz* discloses the elements of appealed claims 20. Appealed claim 20 defines the first receiver is an information carrier reader containing the portion of information and the second receiver receives an electronic signal and the second characteristic is derived from of the portion of the information using encryption. The characteristic of the

information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 20 are not found within *Linnartz*.

*Linnartz* do not disclose or suggest comparing first and second characteristics that are derived from the content of information of a record carrier.

#### **Appealed claim 21**

The rejection alleges *Linnartz* discloses all the elements of appealed claim 21.

Appealed claim 21 defines subject matter for the transmitter that transmits a content of information contained on a storage device and derives a first characteristic from the content of information. The receiver is defined to derive a second characteristic from a portion of the transmitted information and transmits the characteristic, and the transmitter further is defined for comparing the first characteristic to the second characteristic to determine if the characteristics match. The characteristic of the information is used interchangeably with a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the

elements defined by appealed claim 21 are not found within *Linnartz*. *Linnartz* does not disclose or suggest comparing first and second characteristics that are derived from the content of information of a storage device.

**II. The rejection of appealed claims 1-4, 6 and 9-11 under the provisions of 35 U.S.C. §103(a) as being obvious over *Linnartz* in view of *Cox et al.***

**A. The rejection under 35 U.S.C. S 103(a)**

Appealed claims 1-4, 6 and 9-11 stand rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over *Linnartz* in view of *Cox et al.* (U.S. Patent No. 5,915,027).

The MPEP at §2143 defines the requirement to “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).”

**B. The references**

*Linnartz* (U.S. Patent No. 5,915,027) relates to receiving and controlling the playback of encoded video content. The content retrieved by a playback device is watermarked and includes a control signal (See Abstract). The control signal indicates the amount of copying or playing of the content that is allowed. The watermark is transmitted from the playback device to a receiver device where the watermark is extracted by a decoder. The retrieved watermark device is communicated back to the playback device where it is compared against further supplemental information such as a physical mark on the disc or the control signal to allow or disallow playback (See Abstract). The content transmitted from the playback device to the

receiver device contains the watermark. Note that the content that is compared against the retrieved watermark is not disclosed or suggest as being derived from the content that is transmitted from the playback device to the receiver device.

*Linnartz* teaches that a physical mark can be contained on a medium and to cryptographically relate the physical mark to the watermark. *Linnartz* further teaches that it is cryptographically unfeasible to compute the physical mark from the watermark (see page 5, lines 12-18). The physical mark as taught by *Linnartz* is generated from a seed (see page 5, lines 18-20). *Linnartz* teaches that is cryptographically unfeasible to compute the seed from the physical mark (see page 5, lines 33-34).

*Linnartz* teaches a record carrier 51 having a physical mark P and video content containing a watermark W (see Figure 5). The record carrier 51 is played in drive 52 by reading means 53. The reading means has a control unit that detects physical mark P and controls switch 54 based on copyright information (see page 9, lines 16-22). Information related to the presence of the watermark is transferred back to the drive 52 via link 56. The drive 52 can sign the content and the decoder 57 returns a watermark with appropriate signatures. The drive 52 then checks whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

The discussion by *Linnartz* related to a second embodiment as shown in Figure 6, beginning on page 10, line 33 relates to watermark detection with secure links. There is a forward secure path 63 for transmissions from the drive 52 to the decoder 57 and a backward secure path 64 to accommodate communications from the decoder 57 to the drive 52. The second embodiment teaches that the link between drive 52 and decoder 57 is secure due to encryption, implying that the drive and decoder share a common secret. *Linnartz* teach that the secret can be time varying if the drive and decoder have a mechanism to generate a session key (see page 11, lines 10-13). Note that there is no

disclosure or suggestion within *Linnartz* for the common secret to include characteristics that are derived from the content that is transmitted from the drive to the decoder.

*Linnartz* describes a third embodiment on page 11, lines 16-19 wherein the drive and decoder go through an authentication process. There is no disclosure or suggestion within *Linnartz* for the authentication process to include characteristics that are derived from the content that is transmitted from the drive to the decoder.

*Linnartz* describes a forth embodiment on page 11, lines 20-31 wherein the drive hashes, adds a random number and signs the MPEG stream. The decoder verifies the signature, detects the watermark and sends these as a message back to the drive. Note that there is no disclosure or suggestion within the fourth embodiment of *Linnartz* for deriving characteristics of content of information obtained by the drive and transmitted to the decoder to be compared with the characteristics derived from the content received by decoder.

*Linnartz* describes a fifth embodiment beginning on page 11, lines 31 wherein the burden of checking hashes is not placed on the drive or the decoder, but instead upon the MPEG encoder. The MPEG encoder computes a set of values that are provided to the recorder and the drive. The drive selects one of these numbers and requests the decoder to perform the watermark check and hash function, and sign the resulting numbers. The result from the decoder is checked by the drive. Note that there is no disclosure or suggestion within the fifth embodiment of *Linnartz* for deriving characteristics of content of information obtained by the drive and transmitted to the decoder to be compared with the characteristics derived from the content received by decoder.

*Cox et al.* (U.S. Patent No. 5,915,027) related to digital watermarking of image, video and audio data by repeatedly inserting the watermark into sub regions or sub-images of the data (see Abstract).

### **C. The differences between the invention and the references**

The appellants respectfully, point out that it is not clear why this rejection includes *Cox et al.* None of the previous office actions refer to any of the subject matter within *Cox et al.* Accordingly, the rejection is treated as an obviousness rejection based on *Linnartz* for

the simple reason that *Cox et al.* is included by name only and no reference is made to *Cox et al.* by any of the office actions that proceeded this appeal.

### **Appealed claim 1**

Appealed claim 1 defines subject matter for a method of copy protection of information stored on an information carrying medium to be read from a reading device and transmitted to an application device for playback and/or recording for the reading device to continuously derive and report to the application device a first characteristic of the content of the information transmitted from the reading device to the application device, wherein the application device continuously derives and reports back to the reading device a second characteristic of the content of the information received by the application device.

The specification to the present invention defines characteristic of the information as a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. The deriving of a first characteristic relates to summaries of selected parts of the information as discussed on page 8, lines 31-34. The rejection does not address “deriving” as used within the present invention. There is no disclosure or suggestion of “deriving” by *Linnartz* as used within the present invention. The rejection apparently used “obtains” as equivalent to “derives”. For the above stated reasons, “deriving of a first characteristic relates to summaries of selected parts of the information” is not disclosed or suggested by “obtained”. Therefore, all the elements defined by appealed claim 1 are not found within *Linnartz*.

The rejection (contained in the June 16, 2005 Office Action) alleges that the reading device of *Linnartz* (drive 52) checks a first characteristic watermark against corresponding characteristic or supplemental information. The appellants, respectfully, point out that *Linnartz* teaches to check whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or



suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

Appealed claim 1 further defines the application device as deriving and transmitting a second characteristic of the content of the information received by the application device, the reading device receiving the transmission of the second characteristic. Appealed claim 1 defines subject matter for transmitting the content of information from the reading device. The rejection alleges that *Linnartz* discloses transmitting the content of information. There is no disclosure or suggestion within *Linnartz* deriving first and second characteristic from content contained on the information carrying medium and comparing the first and second characteristics for a match. The physical or control signal representing the watermark is compared with the derived watermark signal from the decoder. The appellants respectfully point out that the physical mark within *Linnartz* is not transmitted by the reader. Furthermore, within *Linnartz*, the hash signal is transmitted by the reader. The decoder, within *Linnartz*, does not transmit a hash signal. The signatures within *Linnartz* are not characteristics of the content of information that is contained on the information carrying medium. Therefore, *Linnartz* can not perform a comparison of the first and second characteristics as defined by appealed 1.

#### **Appealed claim 2**

Appealed claim 2 defines the subject matter for the method of appealed claim 1, wherein summaries of the transmitted and of the received information are used as characteristics. There is no disclosure or suggestion within *Linnartz* or *Cox et al.*, either alone or in combination, for summaries of the transmitted and of the received information to be used as characteristics.

#### **Appealed claim 3**

Appealed claim 3 defines the subject matter for the method of appealed claim 1, wherein summaries of selected parts of the transmitted and of the received information are used as characteristics. There is no disclosure or suggestion within *Linnartz* or *Cox et al.*, either alone or

in combination, summaries of selected parts of the transmitted and of the received information are used as characteristics.

**Appealed claim 4**

Appealed claim 3 defines the subject matter for the method of appealed claim 3, wherein the selection of the parts of information to be summarized is based on a secret shared between the reading device and the application device. There is no disclosure or suggestion within *Linnartz* or *Cox et al.*, either alone or in combination, for the selection of the parts of information to be summarized is based on a secret shared between the reading device and the application device.

**Appealed claim 9**

Appealed claim 9 defines a reading device for reading a content of information from an information carrying medium and transmitting the content of information to an application device for playback and/or recording comprising: a reader report unit for continuously reporting to the application device a first characteristic of the content of the information transmitted to the application device and a verifying unit for receiving the first characteristic of the content of the information received by the application device and continuously reporting from the application device to the reading device and for verifying a second characteristic of derived by the application device for the content of information and a comparison, wherein the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the first and second characteristics.

The specification to the present invention defines characteristic of the information as a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. There is no first or second characteristics as defined by the present invention and appealed claim 9 disclosed or suggested by *Linnartz*.

The rejection (contained in the June 16, 2005 Office Action) alleges that the reading device of *Linnartz* (drive 52) checks a first characteristic watermark against

corresponding characteristic or supplemental information. The appellants, respectfully, point out that *Linnartz* teaches to check whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

Appealed claim 9 further defines that the application device reposts a second characteristic of the content of the information received by the application device to the reading device. The rejection alleges that this subject matter is disclosed by *Linnartz*. There is no disclosure or suggestion within *Linnartz* reporting first and second characteristic from content contained on the information carrying medium and comparing the first and second characteristics for a match. The appellants respectfully point out that the physical mark within *Linnartz* is not transmitted by the reader. Furthermore, within *Linnartz*, the hash signal is transmitted by the reader. The decoder, within *Linnartz*, does not transmit a hash signal. The signatures within *Linnartz* are not characteristics of the content of information that is contained on the information carrying medium. Therefore, *Linnartz* can not perform a comparison of the first and second characteristics as defined by appealed 9.

#### **Appealed claim 10**

Appealed claim 10 defines subject matter for an application device 30 for receiving a content of information contained on a record carrier 1 from a reading device 20 for playback and/or recording as discussed page 4, lines 31-34. As illustrated in Figures 3, the application device 30 derives the characteristic by application report unit 302 summarizing parts of the data received by the application device 30 and reports to the drive 20 via line 305 (see specification page 9, lines 1-6). The foregoing derivation and reporting occurs continuously as it occurs as the data is being read from the media, summarized as characteristics and reported to the application device 30 and the drive 20 (as stated on page 4, lines 31-34).

Appealed claim 10 further defines subject matter for a verifying unit 303 for receiving characteristics of the content of the information transmitted from the reading device 20 to the application device 30 continuously reported from the application report unit 302 and for verifying the characteristics by comparison as described in the specification on page 9, lines 3-16, wherein the verifying unit 303 compares the characteristics and the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics (as described in the specification on page 9, lines 11-20).

The specification to the present invention defines characteristic of the information as a summary of the information. Page 5, lines 9-12 of the specification clearly states that the summaries of selected parts of the received or transmitted information are used as characteristics, therefore, the reading and application devices comprise means for summarizing information that is transmitted and received. There are no first or second characteristics as defined by the present invention and appealed claim 10 disclosed or suggested by *Linnartz*.

The rejection (contained in the June 16, 2005 Office Action) alleges that the reading device of *Linnartz* (drive 52) checks a first characteristic watermark against corresponding characteristic or supplemental information. The appellants, respectfully, point out that *Linnartz* teaches to check whether the ticket is valid for the content with that watermark (see page 9, lines 26-30). It should be noted that the watermark is compared with a ticket and that there is no disclosure or suggestion for the ticket to be transmitted from the drive 52 to the decoder 57. The content that the decoder 57 uses to detect the watermark is transmitted from the driver 52 to the decoder 57. Content that drive 52 uses to generate the ticket is not disclosed or suggested as being transmitted from the drive 52 to the decoder 57. There is no disclosure or suggestion that the verification data that is used by the drive 52 to check against the returned by the decoder 57 is derived from content transmitted to the decoder 57.

Appealed claim 10 further defines that the application device reposts a second characteristic of the content of the information received by the application device to the reading device. The rejection alleges that this subject matter is disclosed by *Linnartz*. There is no disclosure or suggestion within *Linnartz* reporting first and second characteristic from content contained on the information carrying medium and comparing the first and second characteristics for a match. The appellants respectfully point out that the physical mark within *Linnartz* is not transmitted by the reader. Furthermore, within *Linnartz*, the hash signal is transmitted by the

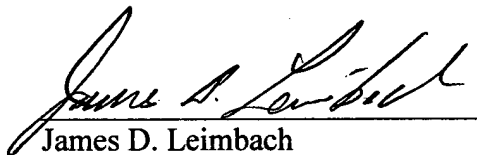
reader. The decoder, within *Linnartz*, does not transmit a hash signal. The signatures within *Linnartz* are not characteristics of the content of information that is contained on the information carrying medium. Therefore, *Linnartz* can not perform a comparison of the first and second characteristics as defined by appealed 10.

### **Conclusion**

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-4, 6, and 9-11 should be reversed.

The Commissioner is authorized to charge fees associated with the filing of this brief to Account No. 50-3745 including any underpayments, excluding the payment of any issue fees, and to credit any overpayments to the same account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James D. Leimbach", is written over a horizontal line.

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**APPENDIX I. Evidence on Appeal**

“None”

**APPENDIX II. Related Proceedings**

“None”

**APPENDIX III. Claims on Appeal**

Please amend the claims to be in the form as follows:

1. A method of copy protection of information stored on an information carrying medium to be read from a reading device and transmitted to an application device for playback and/or recording, wherein the reading device continuously derives and reports to the application device a first characteristic of the content of the information transmitted from the reading device to the application device, wherein the application device continuously derives and reports back to the reading device a second characteristic of the content of the information received by the application device, wherein the characteristics are verified by comparison of the first and second characteristics and wherein the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics.
2. A method as claimed in claim 1, characterized in that summaries of the transmitted and of the received information are used as characteristics.
3. A method as claimed in claim 1, characterized in that summaries of selected parts of the transmitted and of the received information are used as characteristics.
4. A method as claimed in claim 3, characterized in that the selection of the parts of information to be summarized is based on a secret shared between the reading device and the application device.
5. A method as claimed in claim 3 or 4, characterized in that the information is stored in a plurality of sectors in MPEG-format on an optical record carrier, and that the selection of sectors of information to be summarized is based on the value a SCR-base-field of the sectors.
6. A method as claimed in claim 1, characterized in that the characteristics are exchanged between the reading device and the application device together with physical and/or watermark-information of the information carrying medium.



7. A method of exchanging copy protection information regarding a content of information contained on an information carrying medium between a reading device and an application device, wherein the copy protection information comprises:

deriving, by the reading device, of a first characteristic of the content of information;

transmitting the content of information from the reading device; and

receiving a second characteristic of the content of information from the application device, after the transmission by the reading device, the second characteristic being received by the reading device, wherein the characteristics are verified by comparison and wherein the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics.

8. A copy protection system for a copy protection of information stored on an information carrying medium having a reading device for reading a content of information from the information carrying medium, deriving a first characteristic from the content of information and transmitting the information; and an application device for any application, of information received, wherein the application device comprises means for deriving and transmitting a second characteristic of the content of the information received by the application device, the reading device receiving the transmission of the second characteristic and further including a verifying unit for verifying the characteristics, wherein the verifying unit compares the characteristics and the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics.

9. A reading device for reading a content of information from an information carrying medium and transmitting the content of information to an application device for playback and/or recording comprising: a reader report unit for continuously reporting to the application device a first characteristic of the content of the information transmitted to the application device and a verifying unit for receiving the first characteristic of the content of the information received by the application device and continuously reporting from the application device to the reading device and for verifying a second characteristic of derived by the application device for the content of information and a comparison, wherein the result of the comparison is used to stop the

transmission, playback and/or recording of information in case of a mismatch of the first and second characteristics.

10. An application device for receiving a content of information contained on a record carrier from a reading device for playback and/or recording comprising an application report unit for continuously reporting to the reading device a characteristic derived from the content of the information received by the application report unit and a verifying unit for receiving characteristics of the content of the information transmitted from the reading device to the application device continuously reported from the application report unit and for verifying the characteristics by comparison, wherein the result of the comparison is used to stop the transmission, playback and/or recording of information in case of a mismatch of the characteristics.

11. A device for playback and/or recording of information stored on an information carrying medium comprising a reading device according to claim 9 and/or an application device according to claim 10.

12. A method comprising:

receiving a content of information from a first source;

deriving a first characteristic of the content of information

transmitting the content of information;

receiving a second characteristic from a second source that is different than the first source;

determining by comparison whether the second characteristic matches the first characteristic.

13. The method of Claim 12, wherein:

the first source is reading apparatus for reading the content of information from a record carrier;

the second source is a playing and/or recording device that derives the second characteristic from the content of information transmitted; and

the method further comprises terminating the transmitting if the characteristic is not derivable from the content of information transmitted.

14. A method comprising:

- deriving a first characteristic from a first portion of a first information signal in a first apparatus;
- transmitting the first portion;
- receiving a second portion of a second information signal after the transmission of the first portion;
- deriving a second characteristic from the received second portion;
- transmitting the second characteristic;
- receiving the transmitted second characteristic;
- comparing the first characteristic and received second characteristic to determine if transmission should be stopped.

15. The method of Claim 14 wherein:

- the first characteristic is derived in a transmitter apparatus that transmits the first portion,
- the second portion is received by a receiver apparatus that is separate from the transmitter apparatus, the receiver apparatus deriving and transmitting the second characteristic;
- the transmitter apparatus receives the transmitted second characteristics, and the transmitter apparatus compares the first and second characteristics;
- when the first portion and second portion are the same, then the comparison indicates that the first and second characteristics match;
- the transmitter apparatus terminates the transmitting of further portions of the first information signal depending on the comparing.

16. The method of Claim 14 wherein:

- the first portion is read from a record carrier prior to transmitting the first portion;
- the second characteristic is derived from the second portion which is read from the record carrier; and

the received second portion is decoded and recorded and/or played.

17. Transmitting apparatus, comprising:

a first receiver for receiving a content of information from a first source and deriving a first characteristic from the content of information;  
 a transmitter for transmitting the content of information;  
 a second receiver for receiving a second characteristic from a second source after a the content of information is transmitted, the second source being separate from the transmitter and different than the first source; and  
 processing means for determining by comparison whether the second characteristic matches the first characteristic.

18. The transmitting apparatus of Claim 17, wherein:

the first source is a record carrier that contains the content of information and the first receiver is a read head and the second source is a receiver for the content of information transmitted, wherein the second source derives the second characteristic from the content of information and the second receiver is an input for an electronic signal;  
 the transmitting apparatus and the second source are separate portions of player and/or recorder for the record carrier; and  
 the transmitting apparatus terminates further transmission of information depending on the determination by comparison if the second characteristic matches the first characteristic.

19. A transmitting apparatus, comprising:

a first receiver for receiving a portion of information and deriving a first characteristic from the portion of information;  
 a transmitter for transmitting the received portion of information;  
 a second receiver for receiving a second characteristic after the portion of the information is transmitted, the second receiver being different than the first receiver;  
 processor means for comparing the first characteristic with the second characteristic and for terminating transmission of further portions of the information depending on the comparison.

20. The transmitting apparatus of Claim 19, wherein:

the first receiver is an information carrier reader containing the portion of information and the second receiver receives an electronic signal;  
the second characteristic is derived from of the portion of the information using encryption.

21. A system comprising:

a transmitter that transmits a content of information contained on a storage device and derives a first characteristic from the content of information;

a receiver that receives the content of information transmitted and derives a second characteristic from a portion of the transmitted information and transmits the characteristic, the receiver being separate from the transmitter; and

wherein the transmitter further includes means for comparing the first characteristic to the second characteristic to determine if the characteristics match.

Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL**

APR 07 2006

**For FY 2005**☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

**Complete if Known**

Application Number	09/548.727
Filing Date	04/13/2000
First Named Inventor	Johan C. Talstra
Examiner Name	Vicent F. Boccio
Art Unit	2616
Attorney Docket No.	PHN 17410

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 50-3745 Deposit Account Name: \_\_\_\_\_

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	<b>Multiple Dependent Claims</b>
<u>23</u> - 20 or HP =	<u>3</u> x	<u>360</u>	=	<u>360</u>
<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	
<u>6</u> - 3 or HP =	<u>3</u> x	<u>600</u>	=	<u>600</u>

HP = highest number of total claims paid for, if greater than 20.

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<b>Total Sheets</b>	<b>Extra Sheets</b>	<b>Number of each additional 50 or fraction thereof</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>
<u>100</u> - 100 =	<u>0</u> / 50 =	<u>0</u> (round up to a whole number) x	<u>0</u>	<u>0</u>

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Fee for Appeal Brief

500

**SUBMITTED BY**

Signature

Registration No. 34,374  
(Attorney/Agent)

Telephone (585) 381-9983

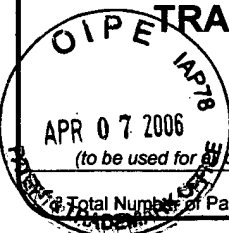
Name (Print/Type) James D. Leimbach

Date 04/03/2006

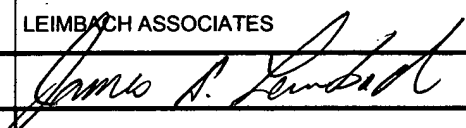
This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

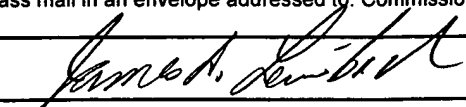
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	<b>TRANSMITTAL FORM</b>		
	Application Number	09/548,727	
	Filing Date	04/13/2000	
	First Named Inventor	Johan C. Talstra	
	Art Unit	2616	
	Examiner Name	Vincent F. Boccio	
Total Number of Pages in This Submission	39	Attorney Docket Number	PHN 17410

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks Enclosed is an Appeal Brief and the required fee.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	LEIMBACH ASSOCIATES		
Signature			
Printed name	James D. Leimbach		
Date	April 3, 2006	Reg. No.	34,374

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature			
Typed or printed name	James D. Leimbach	Date	April 3, 2006

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